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Angiotensin converting enzyme inhibitor - composed of a tripeptide with C-terminal aromatic aminoacid, used for prevention and treatment of hypertension

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Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Main IPC	Week
JP 6016568	A	19940125	JP 92260550	A	19920904	A61K-037/64	199408 B

Priority Applications (No Type Date): JP 91262537 A 19910917

Patent Details:

Patent	Kind	Lan	Pg	Filing Notes	Application	Patent
JP 6016568	A		5			

Abstract (Basic): JP 6016568 A

The inhibitor consists of a tripeptide in which the C-terminal aminoacid is aromatic, pref. Trp.

USE/ADVANTAGE - The inhibitor is useful as a drug or a specific health food for the prevention and inhibition of hypertension.

In an example, 6.7g of wheat gluten contg. 70% moisture were dissolved in 200ml of 2N acetic acid and the soln. was adjusted to a pH of 3.5 with HCl. Pepsin of protein wt. ratio 1.250 was added to hydrolyse it at 37 deg.C for 24 hrs. The hydrolysate was then heated at 100 deg.C for 10 mins. to inactivate pepsin and freeze dried to give 2.0g of pepsin decomposed powder. It was again dissolved in 20ml of 0.02N acetic acid and gel filtered by a Sephadex G-25 column. The peak eluted last was collected and freeze dried. 250mg of the resultant powder was gel filtered by a Sephadex G-10 column. The peak eluted last was collected and conc. in vacuo. The concentrate was subjected to a reversed phase HPLC (Cosmosil 5D18AR) and eluted by acetonitrile concn. gradient in 0.05% trifluoroacetic acid. The active fraction was again subjected to a reversed phase HPLC of acetonitrile concn. gradient elution twice to give 0.2mg tripeptide, Ile-Ile-Tyr. The ACE inhibiting activity, IC50, of the peptide was 3.7 microns.

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Title Terms: ANGIOTENSIN; CONVERT; ENZYME; INHIBIT; COMPOSE; TERMINAL; AROMATIC; AMINOACID; PREVENT; TREAT; HYPERTENSIVE

Derwent Class: B04; B05

International Patent Class (Main): A61K-037/64

International Patent Class (Additional): A23L-001/305; A61K-037/18;

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